

Example #13: From the circuit diagram for example 11, calculate the power used by each resistor connected in the circuit.

→ since all voltages + currents are known,
use $P = IV$ to solve for each resistor!

$$10\ \Omega \rightarrow 20\text{ W}$$

$$20\ \Omega \rightarrow 15\text{ W}$$

$$30\ \Omega \rightarrow 9.9\text{ W}$$

$$8.0\ \Omega \rightarrow 5.9\text{ W}$$

$$12\ \Omega \rightarrow 4.0\text{ W}$$

$$15\ \Omega \rightarrow 30\text{ W}$$

Note: power provided by battery
 $= 1.44 \times 60 = 86\text{ W}$

→ this is equal (within error for rounding) to the total power used by the resistors.